

### **REMARKS**

Claims 1 through 22 were presented for examination and were rejected.

The claims remain unchanged.

The applicants respectfully traverse the rejection and request reconsideration in light of the following comments.

#### **35 U.S.C. 102 Rejection of Claims 1-22**

Claims 1 through 22 were rejected under 35 U.S.C. 102(e) as being anticipated by Kun-Lung Wu, U.S. Patent 6,823,377 B1, issued 23 November 2004 (hereinafter "Wu"). The applicants respectfully traverse the rejection.

Claim 1 recites:

**1.** (original) A method comprising:  
hashing at a first processor a first resource identifier to create a hash key, wherein said first resource identifier identifies a first resource;  
***transmitting from said first processor to a second processor said hash key and a request for said first resource;*** and  
receiving at said first processor a second resource in response to the transmission of said hash key and said request for said first resource.  
(emphasis supplied)

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 1 recites – namely transmitting from a first processor to a second processor a hash key and a request for ***the resource that is identified by said hash key***. In contrast, Wu teaches transmitting from a first processor to a second processor a hash key and a request for ***an alternative identifier for the resource***. A resource and an alternative identifier for the resource are not the same thing, nor are they suggestive of each other, and, therefore, the applicants respectfully submit that the rejection is traversed.

Because the distinction is subtle, a review of Wu and the present invention will help to clarify the reasons for traversal.

First, a little background is helpful. Each node on the Internet has a physical address, such as "45.43.133.231" and, in general, most of the servers and routers on the Internet use physical addresses when referring to each other. While physical addresses are easy for machines to remember, they are not easily remembered by people. As a result, the Internet **domain name system** was created that enables a machine on the Internet to be addressed by an alternative, people-friendly name in addition to its physical "dotted-quad" address. The people-friendly name is called a Uniform Resource Locator or "URL" and has

the familiar form "**www.website.com**". As a result of the domain name system, a machine on the internet could thereafter be referred to by either its physical address or, alternatively, by its URL.

When a person enters the URL "**www.ibm.com**" into his or her browser, the browser does not immediately request the web page at the web site identified by **www.ibm.com**. Rather, the browser first sends the URL **www.ibm.com** to a domain name server, which stores a table of URLs and their corresponding physical dotted-quad addresses. The domain name server takes the URL, figures out the corresponding physical address, and sends back the corresponding physical address to the browser. The browser then sends a request for the web page identified by the physical address to the machine at the physical address. This is all well known in the prior art.

Wu teaches a variation on this process whereby the browser transmits not the URL to the domain name server, but a hash function of the URL. The domain name server returns the physical address, as before, and browser then sends a request for the web page identified by the physical address to the machine at the physical address.

Therefore, Wu teaches a first processor that hashes one identifier of a resource ("the URL") and transmits (1) the hashed resource identifier and (2) a request for ***an alternative identifier of the resource*** (the physical address) to a second processor.

In contrast, and in accordance with the present invention, a first processor hashes the identifier of a resource and transmits (1) the hashed resource identifier and (2) ***a request for that resource*** to a second processor.

***In summary, Wu fails to teach or suggest the transmission from one processor to another of (1) the hashed resource identifier and (2) a request for the resource that is identified by the resource,*** which is recited in claim 1.

Furthermore, it should be clear from this discussion that the teaching of Wu and the present invention can be combined into one system, and that too supports the argument that Wu does not teach or suggest the present invention.

For these reasons, the applicants respectfully submit that the rejection of claim 1 is traversed.

Because claims 2 through 7 depend on claim 1, the applicants respectfully submit that the rejection of them is also traversed.

Claim 8 recites:

**8.** (Original) An apparatus comprising:  
a first processor for hashing a first resource identifier to create a hash key, wherein said first resource identifier identifies a first resource;  
*a transmitter for transmitting said hash key and a request for said first resource to a second processor; and*  
a receiver for receiving a second resource in response to the transmission of said hash key and said request for said first resource.  
*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 8 recites – namely a transmitter for transmitting from a first processor to a second processor a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 8 is traversed.

Because claims 9 through 14 depend on claim 8, the applicants respectfully submit that the rejection of them is also traversed.

Claim 15 recites:

**15.** (Original) A method comprising:  
*receiving a request for a first resource and a hash key that is a hashed function of a first resource identifier;*  
retrieving said first resource and said first resource identifier from a data structure that is indexed by said hash key; and  
transmitting said first resource and said first resource identifier in response to said request for said first resource.  
*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 15 recites – namely receiving a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 15 is traversed.

Claim 16 recites:

**16.** (Original) An apparatus comprising:  
a receiver for receiving a request for a first resource and a hash key that is a hashed function of a first resource identifier;  
a processor for retrieving said first resource and said first resource identifier from a data structure that is indexed by said hash key; and  
a transmitter for transmitting said first resource and said first resource identifier in response to said request for said first resource.  
*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 16 recites – namely a receiver for receiving a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 16 is traversed.

Claim 17 recites:

**17.** (Original) A method comprising:  
*receiving at a first processor a first resource identifier that identifies a first resource, a hash key that is a hashed function of said first resource identifier, and a request for a first resource;*  
retrieving a second resource and a second resource identifier from a data structure that is indexed by said hash key;  
verifying that said second resource is said first resource by comparing said second resource identifier to said first resource identifier; and  
transmitting said second resource to said first processor when said second resource is verified as said first resource.  
*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 17 recites – namely receiving a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 17 is traversed.

Claim 18 recites:

**18.** (Original) An apparatus comprising:

*a receiver for receiving at a first processor a first resource identifier that identifies a first resource, a hash key that is a hashed function of said first resource identifier, and a request for a first resource;*

*a processor for retrieving a second resource and a second resource identifier from a data structure that is indexed by said hash key, and for verifying that said second resource is said first resource by comparing said second resource identifier to said first resource identifier; and*

*a transmitter for transmitting said second resource to said first processor when said second resource is verified as said first resource.*

*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 18 recites – namely a receiver for receiving a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 18 is traversed.

Claim 19 recites:

**19.** (Original) A method comprising:

*hashing at a first processor a first resource identifier to create a hash key, wherein said first resource identifier identifies a first resource;*

*transmitting from said first processor to a second processor said hash key and a request for said first resource when said all or a portion of said hash key is contained in a list of valid hash keys associated with said first processor; and*

*receiving at said first processor said first resource in response to the transmission of said hash key and said request for said first resource.*

*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 19 recites – namely transmitting from a first processor to a second processor a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 19 is traversed.

Claim 20 recites:

**20.** (Original) An apparatus comprising:

a processor for hashing at a first processor a first resource identifier to create a hash key, wherein said first resource identifier identifies a first resource, and for verifying that all or a portion of said hash key is contained in a list of valid hash keys;

*a transmitter for transmitting from said first processor to a second processor said hash key and a request for said first resource; and*

a receiver for receiving said first resource in response to the transmission of said hash key and said request for said first resource.

*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 20 recites – namely a transmitter for transmitting from a first processor to a second processor a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 20 is traversed.

Claim 21 recites:

**21.** (Original) A method comprising:

*receiving at a first processor a request for a first resource and a first hash key that is a hashed function of a first resource identifier;*

retrieving a second resource and a first portion of a second hash key from a data structure that is indexed by a first portion of said first hash key;

verifying that said second resource is said first resource by comparing a second portion of said first hash key to said first portion of said second hash key; and

transmitting said second resource to said first processor when said second resource is verified as said first resource.

*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 21 recites – namely receiving a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

For this reason, the applicants respectfully submit that the rejection of claim 21 is traversed.

Claim 22 recites:

**22.** (Original) An apparatus comprising:  
*a receiver for receiving at a first processor a request for a first resource and a first hash key that is a hashed function of a first resource identifier;*  
a processor for retrieving a second resource and a first portion of a second hash key from a data structure that is indexed by a first portion of said first hash key, and for verifying that said second resource is said first resource by comparing a second portion of said first hash key to said first portion of said second hash key; and  
a transmitter for transmitting said second resource to said first processor when said second resource is verified as said first resource.  
*(emphasis supplied)*

Nowhere does Wu teach or suggest, alone or in combination with the other references, what claim 22 recites – namely receiving a hash key and the request for a resource that is identified by said hash key. In this regard, the arguments for distinguishing Wu from the present invention are equally valid.

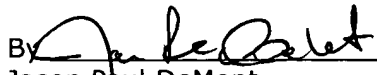
For this reason, the applicants respectfully submit that the rejection of claim 22 is traversed.

**Request for Reconsideration Pursuant to 37 C.F.R. 1.111**

Having responded to each and every ground for objection and rejection in the Office action mailed 28 January 2005, applicants request reconsideration of the instant application pursuant to 37 CFR 1.111 and request that the Examiner allow all of the pending claims and pass the application to issue.

Should there remain unresolved issues the applicants respectfully request that Examiner telephone the applicants' attorney at 732-578-0103 x11 so that those issues can be resolved as quickly as possible.

Respectfully,  
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